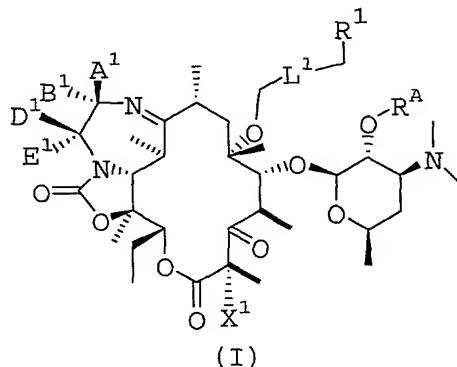


WHAT IS CLAIMED IS

1. A compound having formula (I)



(I)

5 in which,

two of A^1 , B^1 , D^1 , and E^1 are hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, aryl, heteroaryl, heterocyclyl, $-CN$, $-OH$, $-SH$, $-C(O)H$, $-C(O)R^2$, $-C(O)OH$, $-C(O)OR^2$, $-C(O)NR^3R^4$, or alkyl substituted with one, two, or three substituents independently selected from the group consisting of $-CN$, $-OH$, $-SH$, halo, aryl, heteroaryl, heterocyclyl, $-OR^2$, $-SR^2$, $-C(O)H$, $-C(O)R^2$, $-C(O)OH$, $-C(O)OR^2$, $-CH=N-OR^2$, $-OC(O)R^2$, $-OC(O)OR^2$, $-C(O)NR^3R^4$, $-OC(O)NR^3R^4$, $-NR^3R^4$, $-N(R^5)C(O)H$, $-N(R^5)C(O)R^2$, $-N(R^5)C(O)NR^3R^4$, $-N(R^5)SO_2R^2$, $-OR^2$, $-SR^2$, $-S(O)R^2$, $-SO_2R^2$, and $-SO_2NR^3R^4$, and the remainder are hydrogen; or

10 A^1 and D^1 , A^1 and E^1 , B^1 and D^1 , or B^1 and D^1 together are one- to five-membered alkylene or two- to five-membered heteroalkylene, and the remainder are hydrogen; or

15 A^1 and B^1 together are one- to seven-membered alkylene or two- to seven-membered heteroalkylene, and D^1 and E^1 are hydrogen; or

20 D^1 and E^1 together are one- to seven-membered alkylene or two- to seven-membered heteroalkylene, and A^1 and B^1 are hydrogen;

25 L^1 is selected from the group consisting of $C\equiv C$, $(E)-CH=CH$, and $(Z)-CH=CH$;

X^1 is selected from the group consisting of hydrogen and fluoride;

30 R^A is selected from the group consisting of hydrogen and R^P , in which R^P is a hydroxyl protecting group; and

R^1 is selected from the group consisting of aryl, heteroaryl, and heterocycle;

in which, for the foregoing,

35 each aryl, heteroaryl, and heterocyclyl is unsubstituted or substituted with one, two, three, four, or five substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cycloalkyl, halo, -CN, -OH, -SH, -NH₂, -NO₂, (O), -CF₃, -CH₂CF₃, -CF₂CF₃, -OCF₃, -OCH₂CF₃, -OCF₂CF₃, -OR³⁰, -SR³⁰, -S(O)R³⁵, -SO₂R³⁵, -C(O)H, -C(O)R³⁵, -C(O)OH, -C(O)OR³⁵, -NH(R³⁵), -N(R³⁵)(R^{35'}), -C(O)NH₂, -C(O)NH(R³⁵), -C(O)N(R³⁵)(R³⁶), -OC(O)R³⁵, -OC(O)OR³⁵, -OC(O)NH₂, -OC(O)NH(R³⁵), -OC(O)N(R³⁵)(R³⁶), -NHC(O)H, -NHC(O)R³⁵, -NHC(O)OR³⁵, -NHC(O)NH₂, -NHC(O)NH(R³⁵), -NHC(O)N(R³⁵)(R³⁶), -SO₂NH₂, -SO₂NH(R³⁵), -SO₂N(R³⁵)(R³⁶), R⁴⁰, and alkyl substituted with one or two substituents independently selected from the group consisting of halo, -CN, -OH, -SH, (O), -OR³⁰, -SR³⁰, -C(O)OH, -C(O)OR³⁵, -NH₂, -NH(R³⁵), -N(R³⁵)(R³⁶), -C(O)NH₂, -C(O)NH(R³⁵), -C(O)N(R³⁵)(R³⁶), -OC(O)R³⁵, -OC(O)NH₂, -OC(O)NH(R³⁵), -OC(O)N(R³⁵)(R³⁶), -SO₂NH₂, -SO₂NH(R³⁵), -SO₂N(R³⁵)(R³⁶), and R⁴⁰;

55 R^{30} is selected from the group consisting of alkyl and alkyl substituted with a substituent selected from the group consisting of halo and OR⁴⁵;

R^{35} and R^{36} are independently selected alkyl;

60 R^{40} is selected from the group consisting of phenyl, naphthyl, furyl, thienyl, pyrrolyl, oxazolyl, thiazolyl, imidazolyl, pyrazolyl, isoxazolyl, isothiazolyl, 1,2,3-oxadiazolyl, 1,2,3-thiadiazolyl, 1,3,4-thiadiazolyl, 1,2,3-

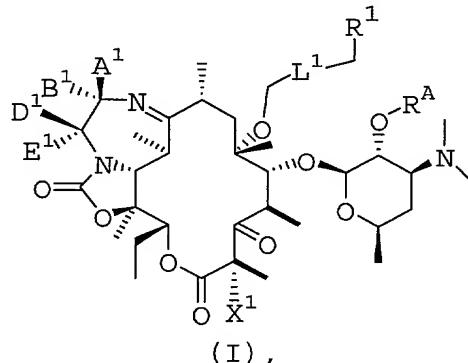
triazolyl, tetrazolyl, pyridyl, pyrazinyl, pyrimidinyl, pyrrolidinyl, indazolidinyl, piperidinyl, piperazinyl, morpholinyl, or thiomorpholinyl, each of which is unsubstituted or substituted with one, two, or three

65 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cycloalkyl, halo, -CN, -OH, -SH, -NO₂, (O), -CF₃, -CH₂CF₃, -CF₂CF₃, -OCF₃, -OCH₂CF₃, -OCF₂CF₃, -OR⁴⁵, -SR⁴⁵, -S(O)R⁵⁰, -SO₂R⁵⁰, -C(O)H, -C(O)R⁵⁰, -C(O)OH, -C(O)OR⁵⁰, -NH₂, -NH(R⁵⁰), -N(R⁵⁰)(R⁵¹), -C(O)NH₂, -C(O)NH(R⁵⁰), -C(O)N(R⁵⁰)(R⁵¹), -OC(O)R⁵⁰, -OC(O)OR⁵⁰, -OC(O)NH₂, -OC(O)NH(R⁵⁰), -OC(O)N(R⁵⁰)(R⁵¹), -NHC(O)H, -NHC(O)R⁵⁰, -NHC(O)OR⁵⁰, -NHC(O)NH₂, -NHC(O)NH(R⁵⁰), -NHC(O)N(R⁵⁰)(R⁵¹), -SO₂NH₂, -SO₂NH(R⁵⁰), and -SO₂N(R⁵⁰)(R⁵¹);

70 R⁴⁵ is alkyl;

75 R⁵⁰ and R⁵¹ are independently selected alkyl.

2. A compound of Claim 1 having formula (I)



in which

5 A¹, B¹, D¹, and E¹ are hydrogen;

X¹ is hydrogen;

L¹ is C≡C;

R^A is hydrogen;

R¹ is selected from the group consisting of aryl,

10 heteroaryl,

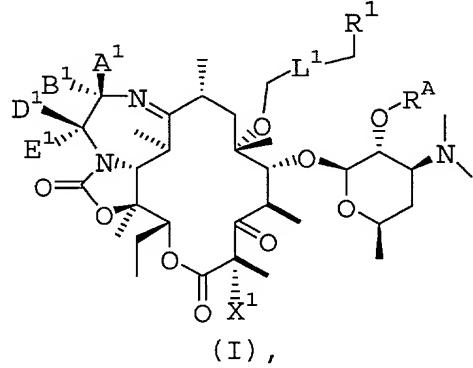
in which the aryl is phenyl and the heteroaryl is pyridyl and quinolinyl, and

in which the foregoing aryl and each foregoing heteroaryl is unsubstituted or substituted with a

15 substituent selected from the group consisting of alkenyl and R^{40} ,

in which R^{40} is selected from the group consisting of furyl, pyridyl, 1,2,3-thiadiazolyl, thiazolyl, thienyl, and tetrazolyl, each of which is unsubstituted or substituted
20 with one alkyl substituent.

3. A compound of Claim 1 having formula (I)



in which

5 A^1 , B^1 , D^1 , and E^1 are hydrogen;

X^1 is hydrogen;

L^1 is $C\equiv C$;

R^A is hydrogen;

10 R^1 is selected from the group consisting of aryl and heteroaryl,

in which the aryl is phenyl and the heteroaryl is pyridyl and quinolinyl, and

in which the foregoing aryl and each foregoing heteroaryl is unsubstituted or substituted with a

15 substituent selected from the group consisting of C_2 -alkenyl and R^{40} ,

in which R⁴⁰ is selected from the group consisting of furyl, pyridyl, 1,2,3-thiadiazolyl, thiazolyl, thiaryl, and tetrazolyl, each of which is unsubstituted or substituted 20 with one C₁-alkyl substituent.

4. A composition for prophylaxis or treatment of methicillin-resistant staphylococcus aureus infections in a fish or a mammal, the composition comprising a therapeutically effective amount of a compound of claim 1.

5 5. A method for prophylaxis and treatment of methicillin-resistant staphylococcus aureus infections in a fish or a mammal comprising administering thereto a therapeutically effective amount of a compound of claim 1.

5 6. A compound of claim 1 selected from the group consisting of (3aS,4R,7R,9R,10R,11S,13R,15R,15aR)-4-ethyl-3a,7,9,11,13,15-hexamethyl-2,6,8-trioxo-11-((4-pyridin-2-5 ylbut-2-ynyl)oxy)dodecahydro-14,1-(epiazenoethano)oxacyclotetradecino[4,3-d][1,3]oxazol-10-yl 3,4,6-trideoxy-3-(dimethylamino)- β -D-xylo-hexopyranoside, (3aS,4R,7R,9R,10R,11S,13R,15R,15aR)-4-ethyl-3a,7,9,11,13,15-hexamethyl-2,6,8-trioxo-11-((4-(4-(1,2,3-10 thiadiazol-5-yl)phenyl)but-2-ynyl)oxy)dodecahydro-14,1-(epiazenoethano)oxacyclotetradecino[4,3-d][1,3]oxazol-10-yl 3,4,6-trideoxy-3-(dimethylamino)- β -D-xylo-hexopyranoside, (3aS,4R,7R,9R,10R,11S,13R,15R,15aR)-4-ethyl-3a,7,9,11,13,15-hexamethyl-2,6,8-trioxo-11-((4-quinolin-3-15 ylbut-2-ynyl)oxy)dodecahydro-14,1-(epiazenoethano)oxacyclotetradecino[4,3-d][1,3]oxazol-10-yl 3,4,6-trideoxy-3-(dimethylamino)- β -D-xylo-hexopyranoside, (3aS,4R,7R,9R,10R,11S,13R,15R,15aR)-4-ethyl-3a,7,9,11,13,15-hexamethyl-2,6,8-trioxo-11-((4-(4-thien-2-20 ylphenyl)but-2-ynyl)oxy)dodecahydro-14,1-

(epiazenoethano)oxacyclotetradecino[4,3-d][1,3]oxazol-10-yl
3,4,6-trideoxy-3-(dimethylamino)- β -D-xylo-hexopyranoside,
(3aS,4R,7R,9R,10R,11S,13R,15R,15aR)-4-ethyl-
3a,7,9,11,13,15-hexamethyl-2,6,8-trioxo-11-((4-(4-(1,3-
25 thiazol-2-yl)phenyl)but-2-ynyl)oxy)dodecahydro-14,1-
(epiazenoethano)oxacyclotetradecino[4,3-d][1,3]oxazol-10-yl
3,4,6-trideoxy-3-(dimethylamino)- β -D-xylo-hexopyranoside,
(3aS,4R,7R,9R,10R,11S,13R,15R,15aR)-4-ethyl-11-((4-(4-
(2-furyl)phenyl)but-2-ynyl)oxy)-3a,7,9,11,13,15-hexamethyl-
30 2,6,8-trioxododecahydro-14,1-
(epiazenoethano)oxacyclotetradecino[4,3-d][1,3]oxazol-10-yl
3,4,6-trideoxy-3-(dimethylamino)- β -D-xylo-hexopyranoside,
(3aS,4R,7R,9R,10R,11S,13R,15R,15aR)-4-ethyl-
3a,7,9,11,13,15-hexamethyl-2,6,8-trioxo-11-((4-(4-
35 vinylphenyl)but-2-ynyl)oxy)dodecahydro-14,1-
(epiazenoethano)oxacyclotetradecino[4,3-d][1,3]oxazol-10-yl
3,4,6-trideoxy-3-(dimethylamino)- β -D-xylo-hexopyranoside,
(3aS,4R,7R,9R,10R,11S,13R,15R,15aR)-4-ethyl-
3a,7,9,11,13,15-hexamethyl-2,6,8-trioxo-11-((4-(4-pyridin-2-
40 ylphenyl)but-2-ynyl)oxy)dodecahydro-14,1-
(epiazenoethano)oxacyclotetradecino[4,3-d][1,3]oxazol-10-yl
3,4,6-trideoxy-3-(dimethylamino)- β -D-xylo-hexopyranoside,
and
(3aS,4R,7R,9R,10R,11S,13R,15R,15aR)-4-ethyl-
45 3a,7,9,11,13,15-hexamethyl-11-((4-(4-(2-methyl-2H-tetraazol-
5-yl)phenyl)but-2-ynyl)oxy)-2,6,8-trioxododecahydro-14,1-
(epiazenoethano)oxacyclotetradecino[4,3-d][1,3]oxazol-10-yl
3,4,6-trideoxy-3-(dimethylamino)- β -D-xylo-hexopyranoside.